

Civil Justice Clinic
Interdisciplinary Environmental Clinic

December 4, 2009

William Rice
Acting Regional Administrator
United States Environmental Protection Agency
Region VII
901 N. 5th Street
Kansas City, KS 66101

Re: Missouri Water Quality Standards and Unclassified Waters

Dear Mr. Rice:

The Clean Water Act requires that Missouri enact specific water quality standards, including beneficial uses and water quality criteria, for all waters of the State. Despite this requirement, the Missouri Department of Natural Resources (“DNR”) has consistently failed to assign either beneficial uses or numeric water quality criteria to more than 159,000 miles of unclassified streams — nearly 90% of Missouri’s waters.¹

This month, DNR completed its latest triennial review and has forwarded the changes in its water quality standards to Region VII of the United States Environmental Protection Agency (“EPA”) for review. The Missouri Coalition for the Environment (“the Coalition”) respectfully requests that EPA withhold its approval of these revisions due to Missouri’s failure to enact water quality standards consistent with the Clean Water Act. The Coalition further requests that EPA take

¹ In its January 15, 2009, presentation on the National Hydrography Dataset to the state's Water Classification Workgroup (<http://www.dnr.mo.gov/env/wpp/docs/011509-hoke-nhd100k.pdf>), DNR noted that of the 183,600 stream miles shown on 1:24K maps, only 24,599 miles were then classified. At the February 19, 2009, workgroup meeting, the Coalition presented empirical evidence that there are many more miles of stream that support aquatic life that are not shown on the 1:24K maps (<http://www.dnr.mo.gov/env/wpp/docs/021909-sherburne-small-streams.pdf>). Hence, the 159,000 miles of unclassified streams indicated by DNR is without doubt a substantial underestimate.

action to promulgate water quality standards for Missouri that comport with the requirements of federal law.

A. BACKGROUND AND HISTORY OF THE CLEAN WATER ACT IN MISSOURI

The Clean Water Act established as a national goal “water quality which provides for the protection and propagation of fish, shellfish and wild life and ... recreation in and on the water,” wherever attainable. CWA § 101(a)(2). To reach this goal, the CWA requires that states enact water quality standards for all navigable waters in order to “protect the public health and welfare, enhance the quality of the water, and serve the purposes of this Act.” CWA § 303(c)(2)(A). State water quality standards must include the designated use or uses to be applied to the waters and the criteria necessary to protect those uses. CWA § 303(c).

EPA’s regulations make it clear that state water quality standards must protect section 101(a)(2) “fishable/swimmable uses (i.e., protection and propagation of fish, shellfish, and wildlife and ... recreation in and on the water) unless those uses have been shown to be unattainable. As EPA has recently acknowledged, “Unless the State demonstrates that a section 101(a)(2) use is not attainable on a certain water body, the water body must be designated for those 101(a)(2) uses. ... Thus, where a State believes that a use specified in section 101(a)(2) is not attainable, that State must conduct a use attainability analysis ... in order to demonstrate that such section 101(a)(2) use is not attainable.”²

Although the CWA requires state regulators to treat waters as suitable for fishing and swimming until proven otherwise, Missouri’s system in effect turns that presumption on its head. At the current time, only waters that have been formally “classified” receive the federally mandated designated uses. “Classification” is an artifact of Missouri regulation and does not further federal law. There is no rhyme or reason to DNR’s classification system, and many streams that contain aquatic life or that are being used for recreation have not been “classified.”

² See Letter to Mark N. Templeton, Director, Missouri Department of Natural Resources from Peter S. Silva, Assistant Administrator, U.S. EPA Office of Water, at 2 (October 29, 2009), attached as Exhibit 1.

There is currently no mechanism in place through which these “unclassified waters” can receive a designated use or the protection of numeric water quality criteria. Only a small percentage of Missouri’s navigable waters have been “classified” and designated for fishable/swimmable uses, with specific water quality criteria sufficient to protect those uses. The vast majority of Missouri’s rivers and streams neither have these protections nor have been the subject of UAAs or any other credible, structured, scientific assessment showing that the fishable/swimmable uses are not attainable. So, instead of being presumed suitable for swimming and fishing until proven otherwise, as required by federal law, Missouri waters are given only minimal protections until DNR decides otherwise. Moreover, the majority of NPDES permits issued in Missouri allow discharges into unclassified streams. These permits cannot be properly written or sufficiently enforced without the protection of water quality criteria and designated uses.

EPA Region VII has been aware of these deficiencies in Missouri law for at least nine years. During its 2000 review of Missouri’s revised water quality standards, EPA noted that DNR, by providing designated uses only to certain classified waters, effectively denied unclassified waters their presumptive fishable/swimmable designations and associated protections without going through the proper process of downgrading those waters’ designated uses through UAAs. In a letter dated September 8, 2000, EPA Region VII called for the protection of Missouri’s unclassified waters:

[A]ny water is presumed to have a default use designation of “fishable/swimmable” under the [CWA’s] rebuttable assumption, and it is the Agency’s view that the States must protect unclassified or unlisted waters as well as classified waters for that default use. We note that although unlisted (i.e., unclassified) waters are protected by the general criteria in the Water Quality Standards, there is no clear default use-designation language in Missouri’s WQS” for “Unclassified waters.”³

Region VII then indicated that Missouri should address this issue during its next triennial review.

However, Missouri did not do so in 2000, nor did it do so at any other time in the next nine years. Instead, DNR moved at an unacceptably slow pace, missing both self- and EPA-imposed deadlines. First, in a 2001-2003 Revision Plan, it identified the protection of unclassified waters

³ Letter from U. Gale Hutton, Environmental Protection Agency Region VII, to Stephen Mahfood, Missouri Department of Natural Resources (Sept. 8, 2000) at 28-29, attached as Exhibit 2.

as a “Phase 3, Long-Term Priority.”⁴ Missouri DNR promised to correct the deficiencies in its water quality standards by 2001, and when it missed that deadline, by July 1, 2002.⁵ As of March 2003, although some changes to the water quality standards had been proposed, Missouri’s unclassified waters still lacked any “clear default use-designation language.”⁶ The Coalition expressed its disapproval in a comment letter to the DNR, but to no avail.

As it became clear that neither Missouri DNR nor EPA planned to take action to resolve the unclassified waters issues, the Coalition sent a 60-day notice of intent to sue EPA for failure to issue revised standards as required under the CWA.⁷ In October 2003, the Coalition filed its lawsuit against EPA. *Missouri Coalition for the Environment v. Leavitt*, No. 03-4217-CV-C-NKL (W.D.Mo.). The Coalition’s Fourteenth Claim for Relief specifically maintained that DNR had failed to adequately protect Missouri’s unclassified waters for “fishable/swimmable” uses and that EPA had not corrected this inconsistency between the state’s water quality standards and the CWA.⁸ The Coalition and the EPA were able to resolve most of the Coalition’s claims in December 2004.⁹ However, resolution of the suit did not resolve Missouri’s failure to provide federally mandated protections to its unclassified waters.

In its 2005 triennial review, DNR issued proposed changes to Missouri’s water quality standards but again failed to include regulations applying the “fishable/swimmable” requirement to

⁴ Letter from John A. Young, Director of Missouri Department of Natural Resources, to U. Gale Hutton, Environmental Protection Agency Region VII (Mar. 8, 2001) (enclosure), attached as Exhibit 3.

⁵ Letter from Scott B. Totten, Interim Director of Missouri Department of Natural Resources, to Cheryl A. Crisler, Environmental Protection Agency Region VII (Mar. 8, 2002), attached as Exhibit 4.

⁶ Letter from Edward J. Heisel and Jason Schmidt, Missouri Coalition for the Environment, to Stephen Mahfood, Director of Missouri Department of Natural Resources (Mar. 4, 2003), attached as Exhibit 5.

⁷ Notice of Intent to Sue for Failure to Perform Mandatory Duties Under the Clean Water Act, from Edward J. Heisel, Missouri Coalition for the Environment, to Linda Fisher, US Environmental Protection Agency (July 2, 2003), attached as Exhibit 6.

⁸ Missouri Coalition for the Environment Complaint (Oct. 2003) at 21, attached as Exhibit 7.

⁹ See *Missouri Coalition for the Environment v. Leavitt* Consent Decree (Dec. 27, 2004), attached as Exhibit 8; *Missouri Coalition for the Environment v. Leavitt* Settlement Agreement (Dec. 15, 2004), attached as Exhibit 9.

unclassified waters.¹⁰ The Coalition submitted comments on the draft revisions urging DNR to designate uses and apply specific water quality criteria to all unclassified waters, stating that “Perhaps the most significant remaining shortfall of Missouri’s water quality standards is their failure to protect the so-called ‘unclassified’ waters as required by the Clean Water Act.”¹¹ No changes to Missouri’s unclassified waters provisions were made as a result of the triennial review and EPA neither required Missouri to make any changes to its water quality standards nor did it promulgate any of its own.

Between 2005 and 2008, the Coalition and others urged the Missouri DNR to change its water quality standards to protect unclassified waters. On November 2, 2005, the Interdisciplinary Environmental Clinic (on behalf of the Coalition) presented information to Missouri’s Clean Water Commission on the unclassified waters in St. Louis, St. Charles, and Franklin Counties.¹² The presentation noted the arbitrariness of classification boundaries, as numeric water quality criteria were selectively applied to waterbody segments based on geographic markers such as roads and bridges, instead of biological or water flow data.¹³

On January 25, 2008, the Coalition again wrote DNR and EPA Region VII “requesting action on the part of the Department of Natural Resources regarding the designation of uses to Missouri’s unclassified streams [or i]n the alternative, if the state continues to fail to designate the appropriate uses, then we request that EPA do so.”¹⁴ The Coalition included with this letter a study conducted on 66 unclassified streams throughout the state, providing data and photographs

¹⁰ Proposed Amendments, 30 Mo. Reg. 843-50 (March 2, 2005), attached as Exhibit 10.

¹¹ Letter from Edward J. Heisel, Missouri Coalition for the Environment, to Marlene Kirchner, Clean Water Commission (July 12, 2005), attached as Exhibit 11.

¹² Interdisciplinary Environmental Clinic at Washington University School of Law, Sample of Unclassified Waters St. Louis County, St. Charles County, and Franklin County, Power Point presentation (Nov. 2, 2005); Missouri Clean Water Commission Meeting Transcript (Nov. 2, 2005). A copy of the presentation is maintained in the Clinic’s files. The meeting transcript is attached as Exhibit 12.

¹³ See *id.* at 10-11.

¹⁴ Letter from Kim A. Knowles and Dan Sherburne, Missouri Coalition for the Environment, to Ed Galbraith, Missouri Department of Natural Resources, and William “Art” Spratlin, Environmental Protection Agency Region VII (Jan. 25, 2008), attached as Exhibit 13.

establishing that unclassified streams support aquatic life.¹⁵ DNR responded to the Coalition's 2008 letter by stating that its "goal is to complete stream classification reviews over the course of the next two triennial reviews following the current water quality rulemaking effort."

In between triennial reviews, DNR has from time to time given short-lived and desultory attention to this issue. In 2006, DNR established the Small Streams Work Group (or the Clean Water Forum Advisory Group for Unclassified Waters, Wetlands, and Tiered Aquatic Life Use). The Work Group's goal was to present draft regulations "applying specific chronic criteria for protection of aquatic life and recreational use designation to all heretofore unclassified waters of the state in the absence of a Use Attainability Analysis" to the Clean Water Commission by January 3, 2007. It compiled such draft regulations in 2006, but those regulations went no further, and the Work Group was canceled in October 2006. The Work Group met briefly again in 2007, but meetings ended by September 2007. A reconstituted version of this Work Group resurfaced in January 2009 and met six times that year.¹⁶ Although the Work Group agreed upon a default-use standard, no regulations or even proposals for regulations have resulted from these few meetings. The 2009 iteration of the Work Group is no farther along than the 2006 version, and the Coalition has no confidence that the latest effort will produce acceptable standards or regulations. In fact, given the current several vacancies in leadership at DNR, it is very likely that the Work Group will not continue to meet for the foreseeable future.

Both the Coalition and EPA have participated in these Work Groups. In fact, on at least one occasion, an EPA employee informed the Work Group leader that default classification standards for Missouri's unclassified waters would be necessary.¹⁷ While DNR initially proposed in the 2009 workgroup meetings limiting default use designations to streams in the 1:100K NHD, the department since has acknowledged that all waters of the state, including headwater streams and

¹⁵ Included as attachment to Exhibit 13.

¹⁶ Work Group Meeting 2009 Schedule, available at <http://www.dnr.mo.gov/env/wpp/cwforum/adv-uncl-waters-wetlands.htm>

¹⁷ Email from Rebecca Landewe, US Environmental Protection Agency Region VII, to Phil Schroeder, Missouri Department of Natural Resources (Nov. 17, 2007), attached as Exhibit 14.

unclassified lakes, must receive default uses and that its current classification is unnecessary and should be removed from the state water quality standards. However, despite more than four years of on-again, off-again meetings, Missouri's unclassified waters *still* lack the same federally-required basic protections that EPA requested in September 2000.

This year's triennial review was just as disappointing as the last several. In 2008- 2009, Missouri again conducted the required triennial review of its water quality standards and proposed a number of revisions to its water quality standards. The Coalition objected to the proposed regulations, noting that once again, the Missouri DNR had failed to take any action regarding the assignment of uses or numeric water quality criteria to its unclassified waters. However, the regulations were enacted despite this failure to address unclassified waters.

Region VII now has Missouri's latest revisions for its review under § 303(c)(2)(A) of the Clean Water Act. It is time for Region VII to take action and bring Missouri's water quality standards in line with federal law.

**B. SCIENTIFIC RESEARCH OFFERS FURTHER PROOF THAT MISSOURI'S
CURRENTLY PROPOSED WATER QUALITY STANDARDS VIOLATE THE
CLEAN WATER ACT**

One justification that has been given for Missouri's failure to include the vast majority of its waters is that only the small headwaters and/or intermittent or ephemeral flow streams have been left unclassified, and that neither supports any kind of significant aquatic life worth preserving nor provides potential for any type of recreational use. Scientific research and factual evidence provide proof that there are few, if any, differences between classified and unclassified streams and that flow and depth metrics are not adequate to predict aquatic life or recreational use.

1. Missouri's Unclassified Streams are Vital for Aquatic Life

It is critical that Missouri classify and protect its streams, because they play a key role in maintaining the health of the entire river system, especially the health of aquatic life throughout the river ecosystem.¹⁸

Studies of headwater streams by the Missouri Cooperative Fish and Wildlife Research Unit, the Arkansas Cooperative Fish and Wildlife Research Unit, the Missouri Department of Conservation, DNR, and the Coalition have all found evidence of abundant aquatic life in the headwater stream habitat.¹⁹ The aquatic life found in headwater streams has included a variety of invertebrate, fish, and amphibian populations.

A study by the Coalition in 2007 examined 66 streams from all ecological drainage units (EDU) in the state. Each EDU was found to contain abundant aquatic life, as listed in the table below:

Ecological Drainage Unit	Stream	Highest Life Form in Sample	Number of Species in Sample
MSAP	Spoil Bank 1	Fish	8
OCB	Otter Creek	Fish	11
OG	Myers Branch	Frog	13
OM	Little Fox Creek	Tadpoles	12
OML	Fiddle Creek	Fish	10
OMSMO	Deer Creek	Crayfish	8
OO	Opossum Creek	Fish	10
OUSFC	Schroeder Branch	Fish	13
OW	Bryant Creek Tributary	Fish	14
PGC	Owl Creek	Frog	12
PMOK	Plum Branch	Fish	8
PMONP	Clear Branch Tributary	Scud	9
PMSD	Sugar Tributary	Scud	6
PO	Polecat Creek	Fish	11

¹⁸ Letter from the Interdisciplinary Environmental Clinic, Washington University in St. Louis School of Law, to Phil Schroeder, Department of Natural Resources (May 12, 2009), attached as Exhibit 15.

¹⁹ *Id.*

Many more examples of abundant aquatic life have been found in unclassified streams in Missouri. A field survey conducted in June 2005 by the Interdisciplinary Environmental Clinic found several fish in unclassified stream segments, as well as frogs and fish in smaller pools.²⁰ Since May 1995, the River des Peres Watershed Coalition (“RdPWC”) has sampled the river, finding seven species of fish, along with bullfrogs and a snapping turtle, in unclassified Deer Creek.²¹ The RdPWC continues to sample 15 sites on the creek (latest sampling April 17, 2009), consistently finding evidence of aquatic life.²²

Evidence from other state studies supports the conclusion that important fish species and amphibians in Missouri may rely upon unclassified headwater streams for habitat. In a study of primary headwaters, or watersheds draining an area of less than one square mile, the Ohio Environmental Protection Agency collected 43 different fish species from primary headwater streams in Ohio.²³ If fish species use the primary headwater streams for habitat in Ohio, it is probable that the same fish species would use headwater stream habitat in Missouri, as well.

The Ohio Environmental Protection Agency also carried out a survey of salamander species in primary headwater habitats in the state of Ohio.²⁴ The survey results show that salamanders depend upon headwater stream habitat for reproduction. Four of these identified species, the four-toed salamander, long-tailed salamander, cave salamander, and small-mouthed salamander, also exist in Missouri waters. It may be assumed that the same species would use headwater streams for reproduction regardless of whether the species occurs in Ohio or Missouri waters.

²⁰ Interdisciplinary Environmental Clinic, Washington University in St. Louis School of Law, Sample of Unclassified Waters, Missouri Clean Water Commission Meeting Transcript (Nov. 2, 1008), attached as Exhibit 12.

²¹ Letter from Danelle Haake, River des Peres Watershed Coalition to Phil Schroeder, Missouri Department of Natural Resources, attached as Exhibit 16.

²² *Id.*

²³ Ohio Environmental Protection Agency, Division of Surface Water, *Technical report: Ohio's primary headwater streams-fish and amphibian assemblages*, 2002 at 5, attached as Exhibit 17; see also Missouri Fish and Wildlife Information System (MOFWIS), MDCOnline, Missouri Department of Conservation, available at http://mdc4.mdc.mo.gov/applications/mofwis/mofwis_search1.aspx.

²⁴ Ohio EPA, *Technical Report*, Exhibit 17, at 17-19.

2. Missouri's Unclassified Streams are Already Used for Human Recreation

A field survey conducted by the Interdisciplinary Environmental Clinic in June 2005 indicated that recreational use occurs in many streams within the St. Louis area. Many of the streams in the survey are located in the midst of residential communities—some are even near playgrounds and many have public access points. Attached are photographs taken by the Interdisciplinary Environmental Clinic documenting public access points to unclassified Black Creek, Deer Creek, and River des Peres.²⁵ In November 2007, DNR received a letter from Edward Heisel reporting his field survey of a then-unclassified segment of Black Creek. The surveyors witnessed several incidents of recreational use—including children wading in the water.²⁶

Furthermore, the public has consistently documented recreational uses of streams such as Deer Creek, and has sent these comments to the DNR. The Recreational Use Attainability Analysis Public Comments from 2008 report numerous incidents of swimming, wading, boating, and children playing in a segment of Deer Creek. One report indicates that these recreational uses occur more than 30 times per year.²⁷ Similarly, the DNR has received comments from the public regarding recreational uses in the currently unclassified portions of the River des Peres. Public comments from 2008 report swimming, wading, and children playing in the unclassified segment of River des Peres. The comments indicate that these uses occur 20 times per year. Additionally, the June 2005 Clinic survey interviewed a resident who had observed children swimming during high flow periods in the unclassified segment of River des Peres.²⁸

In many cases, public comments indicate that even when UAAs are conducted to downgrade the stream and remove WBCR as a use, the public still utilizes the stream for

²⁵ Public Access Points to Unclassified Black Creek, Deer Creek, and River des Peres, Photos, Interdisciplinary Environmental Clinic, Washington University in St. Louis School of Law (March 25, 2009), attached as Exhibit 18.

²⁶ Letter to Ed Galbraith, Missouri Department of Natural Resources, and Art Spratlin, EPA Region VII, Re: Recreational and Aquatic Life Designated Uses, Black Creek, St. Louis County, Missouri (Nov. 21, 2007), attached as Exhibit 19.

²⁷ Recreational UAAs, Public Comments (May 21, 2008 – Aug. 31, 2008), attached as Exhibit 20.

²⁸ Public Comments ending November 28, 2005, River des Peres Whole Body Contact Recreation Issue at 3, 33-38, attached as Exhibit 21.

recreation. Officially removing WBCR uses does not change the public's behavior; therefore, the streams should be protected according to their actual current use.

C. IT IS TIME FOR THE EPA TO ENSURE THAT MISSOURI WATER QUALITY STANDARDS SATISFY THE CLEAN WATER ACT'S REQUIREMENTS.

It is unacceptable that Missouri water quality standards fail to satisfy a federal mandate passed more than 35 years ago. The Missouri DNR has had many chances to revise its inadequate water quality standards, yet it has consistently ignored the unprotected status of a vast majority of its waters, as well as the interests of many constituents who use and live near these waters. With its continued reliance on "classification" as a prelude to the assignment of uses and the applicability of numeric water quality criteria, Missouri clings to an arbitrary and unscientific system that does nothing to satisfy the Clean Water Act.

Missouri's current water quality standards are not in compliance with the basic requirements of the Clean Water Act. Its recently adopted water quality standards fail to remedy this deficiency. It is now up to the EPA to take action, in accordance with its statutory mandate to ensure that all state water quality standards meet the requirements of the Clean Water Act. CWA § 303(c)(3). As the Act directs, when a new or revised state standard is "not consistent with the applicable requirements of this chapter," the EPA "shall ... notify the State and specify the changes to meet such requirements." CWA § 303(c)(3).

Regrettably, EPA has not acted upon Missouri's continued violation of the Clean Water Act in the nine years since Region VII's original remarks, in the five years since the Coalition's lawsuit was settled, or in the four years since Missouri's last triennial review. It is time for EPA to address Missouri's inadequate water quality standards and ensure that Missouri promulgates regulations that are in accordance with the mandates of the CWA *before* the next triennial review.

To bring its laws and regulations into conformity with the directives of the Act, Missouri must adopt default designated uses for all waters, consistent with the CWA's fishable/swimmable goal. In Missouri's case, this means that it must assign all its waters the designated uses of Protection

of Aquatic Life (AQL) and Whole Body Contact Recreation (WBCR), as found in 10 CSR 20-7.031(C). Missouri's waters will only receive the protection to which they are entitled under the Clean Water Act's mandates by designating fishable/swimmable uses for all waters and applying the specific numeric criteria that support the AQL and WBCR uses. Because Missouri has failed to enact these standards into law, the Clean Water Act requires EPA to take official action. If EPA does not satisfy its duty to ensure that lawful water quality standards are enacted in Missouri, either by directing Missouri to enact those standards or by promulgating CWA-compliant standards itself, the Coalition will be compelled to take further action.

Sincerely,

A handwritten signature in black ink, appearing to read 'Elizabeth Hubertz', with a stylized flourish at the end.

Elizabeth Hubertz, Clinic Attorney
Peter Goode, Clinic Engineer